

## WHAT IS CLAIMED IS:

1. A data processing system, comprising:

a primary site which includes a first computer and a first  
5 storage system connected to said first computer; and

a secondary site which includes a second storage system  
connected to said second computer;

wherein,

said first storage system and said second storage system  
10 are connected to each other via a communication line;

said first storage system records update history of data  
as a journal in a storage device, and transfers said journal  
to said second storage system via said communication line; and

said second storage system stores said transferred  
15 journal to a storage device.

2. A data processing system according to claim 1, wherein  
said second storage system executes data recovery based on said  
stored journal.

3. A data processing system according to claim 1, wherein  
20 said journal recorded in the storage device of said first storage  
system is stored in a plurality of logical volumes, and

while the journal is stored in a certain logical volume,  
a logical volume for storage is switched to another logical

volume.

4. A data processing system according to claim 3, wherein said switching is made at such timing as designated by a user.

5. A data processing system according to claim 3, wherein  
5 said switching is executed at such timing that transfer of the logical volume in which the target journal for transfer to said secondary site is stored is completed.

6. A data processing system according to claim 1, wherein said transferred journal in said second storage system is stored  
10 in a plurality of logical volumes, and

while the journal is transferred to a certain logical volume, a transfer-target logical volume is switched to another logical volume.

7. A data processing system according to claim 6, wherein  
15 said switching is made at such timing as designated by a user.

8. A data processing system according to claim 6, wherein said second storage system recovers data based on said stored journal, and

said switching is made at such timing that all logical  
20 volumes which store a journal used for recovery are recovered.

9. A data processing system according to claim 1, wherein said second storage system acquires information related to a journal recorded in said first storage system, and

said second storage system issues a command requesting said first storage system to send said journal.

10. A data processing system according to claim 9, wherein said journal recorded in a storage device of said first storage system is stored in a plurality of logical volume, 5 a logical volume for storage is switched to another logical volume, while the journal is stored in a certain logical volume, and

said switching is made at such timing that a command for 10 requesting dispatch of said journal is received from said second storage system.

11. A data processing system according to claim 9, wherein said transferred journal in said second storage system is stored in a plurality of logical volumes,

15 a transfer-target logical volume is switched to another logical volume, while the journal is transferred to a certain logical volume, and

said switching is made at such timing that said journal transfer is started at said first storage system.

20 12. A data processing system, comprising:

a primary site which includes a first computer and a first storage system connected to said first computer; and

a secondary site which includes a second computer and

a second storage system connected to said second computer;  
wherein,

said first computer and said second computer are  
connected to each other via a first communication line,

5       said first storage system and said second are connected  
to each other via a second communication line,

said first storage system records data update history  
in a storage device as a journal,

said first computer acquires information related to said  
10   journal from said first storage system and transmits the  
information to said second storage system via said first  
communication line,

said first storage system transfers said journal to said  
second storage system via said second communication line, and

15       said second storage system stores the transferred  
journal in a storage device.

13. A data processing system according to claim 12,  
wherein said second storage system issues a command requesting  
said first storage system to send said journal.

20       14. A data processing system according to claim 12,  
wherein data recovery in said second storage system is executed  
by a recovery program to be executed on said second computer  
based on said transferred journal.

15. A data processing system, comprising:

a primary site which includes a first computer and a first storage system connected to said first computer; and

a secondary site which includes a second computer and  
5 a second storage system connected to said second computer;  
wherein,

said first storage system and said second storage system are connected to each other via a communication line,

said first storage system includes a first storage  
10 controller and a first storage device,

said first storage controller executes a journal acquisition program which records data update history in said first storage device as a journal, and a journal transfer program which transfers said journal to said storage system via said  
15 communication line,

said second storage system includes a second storage controller and a second storage device,

said second storage control system executes a journal reflection program which recovers data based on a journal and  
20 a journal transfer program which receives said transferred journal from said first storage system,

when said journal is being transferred from said first storage system to said second storage system,

said first storage controller, while said journal is being stored in a certain logical volume of said first storage system, switches a logical volume for storage to another logical volume of said first storage device, and

- 5        said second storage controller, while said journal is being transferred to a certain logical volume of said second storage device, switches a transfer-target logical volume to another logical volume of said second storage device.